

Abstract of the Invention

Methods, receivers and transmitters all adapted to assist in the performance of layer 2 frame delineation are provided which are applicable in the context of OFDM, and also applicable to any layer 1 design facilitating high data rate transmission. Advantageously, the invention allows the identification of where a layer 2 frame begins notwithstanding the fact that the previous layer 2 header, which would normally be used to identify the location of the next layer 2 frame, has been received in error. This means that rather than discarding a lot of data after an erroneous header, for example all data until a super-frame boundary, layer 2 frames can be correctly received starting with the next header received in a non-erroneous layer 1 frame. The method implemented at a transmitter, provided by one broad aspect of the invention involves prior to transmitting layer 1 frames, adding layer 2 boundary information to each layer 1 frame, the layer 2 boundary information indicating whether there is a layer 2 header within the layer 1 frame and indicating where in the layer 1 frame the layer 2 header begins. The layer 2 boundary information can consist of frame delineation bits added to each layer 1 frame. At a receiver of frames transmitted using the above noted transmit functionality, the receiver receives a sequence of layer 1 frames. For each layer 1 frame received, the boundary information is extracted from the layer 1 frame indicating whether there is a layer 2 header within the layer 1 frame, and indicating where in the layer 1 frame the layer 2 header begins.